R09

Code: 9A01703

B.Tech IV Year I Semester (R09) Supplementary Examinations June 2017
GEOTECHNICAL ENGINEERING – II
(Civil Engineering)

Time: 3 hours   Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks
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1 (a) Describe the plate load test with a neat sketch.
  (b) Explain different methods of soil exploration.

2 (a) Explain the method of slices for stability analysis of slopes.
  (b) How do you check the stability of an earth dam under steady seepage condition?

3 (a) Explain Culmann's graphical method for the determination of active earth pressure.
  (b) Differentiate Rankine's theory with Coulomb's theory of earth pressure.

4 (a) Explain the criterion to be followed for the stability of a gravity retaining wall.
  (b) What are different types of retaining walls? Explain.

5 (a) What are different types of shallow foundations? Explain them with sketches.
  (b) List out the assumptions of Terzaghi's bearing capacity theory.

6 (a) What are the different types of foundation settlements? Explain them.
  (b) How do you estimate the safe settlement pressure based on standard penetration test data?

7 (a) Discuss various dynamic formulae. What are their limitations?
  (b) Give the classification of pile foundations based on their functionality and materials used.

8 (a) What are various components of well foundations?
  (b) Discuss the causes and the remedies for tilt and shift in well foundations.

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